

REMARKS

Initially, Applicants would like to thank Examiner Joynes for the courtesy extended in the telephone interview of March 1, 2002 during which the following remarks were discussed in detail.

Claims 1-50 were pending and now claims 1-55 are pending in the application after entry of this amendment.

Claims 1, 34, 43, 49 and 50 have been amended in a bonafide attempt to facilitate prosecution and to more particularly define the claimed invention. Support for the amendments to Claims 1, 34 and 43 can be found in original claims 1, 34 and 43 respectively. Support for the amendment to Claim 49 can be found in the original claim 1 and the specification at page 2, lines 7-8. Support for the amendment to Claim 50 can be found in original Claim 1 and in the specification at page 3, lines 20-23. No new matter has been added by these amendments

Claims 51-55 have been added to provide additional protection for certain aspects of the present invention. Support for new claims 51, 52 and 53 can be found in original Claims 1, 34 and 43 respectively. Support for new Claim 54 can be found in original Claim 1 and the specification at page 2, lines 7-8. Support for new Claim 55 can be found in original Claim 1 and the specification at page 3, lines 20-23. No new matter has been added by these amendments.

The only rejections raised by the Examiner in the Office Action of January 2, 2002 are based on 35 U.S.C. § 103(a) obviousness. For reasons set forth below, these rejections are in error and should therefore be withdrawn.

I. Rejections over U.S. Patent No. 4,173,627

The Office Action has reiterated the previous rejections of Claims 1, 33, 34, and 43, and certain claims depending there from, as allegedly being obvious over the teaching of U.S. Patent No. 4,173,627 (hereinafter “Madrang”).

It is well settled that in order to establish a *prima facie* case of obviousness, the prior art must teach, or at least suggest, the claimed invention as a whole. Moreover, there must be adequate motivation and a reasonable expectation of success to undertake the modifications proposed in the rejection. To this end, the Examiner was not persuaded by the Applicants’ previous response that such standards have not been met in the instant application. However, the Examiner has failed to appreciate several unexpected and superior results achieved by the instant invention.

First, each of Claims 1, 33, and 34 recite a composition comprising, in part, ethanol and a minimum amount of methyl acetate. Likewise, Claim 43 similarly recites a composition comprising, in part, isopropanol and a minimum amount of methyl acetate. Therefore, it necessarily follows that at least one feature of the presently claimed invention is a combination of: (1) ethanol and methyl acetate, or (2) isopropanol and methyl acetate.

By requiring a minimum amount of methyl acetate, the presently claimed invention achieves the superior advantage of reducing the volatile organic compound content of the hair care composition. A volatile organic compound (VOC) is defined as any compound of carbon, which participates in atmospheric photochemical reactions. See, 40 C.F.R. 51.100 attached as appendix “A”. To that end, methyl acetate has been expressly exempted from the list of volatile organic compounds. See, 40 C.F.R. 51.100. Therefore, the inclusion of VOC exempt methyl acetate in the claimed invention necessarily reduces the volatile organic compound content of the composition relative to a composition not containing a VOC exempt component.

To this end, the disclosure of Madrange does not teach or suggest a hair care composition that achieves the superior result of lowering the VOC content. Moreover, the disclosure of Madrange similarly fails to provide the requisite motivation to arrive at a hair care composition containing a reduced volatile organic compound content.

Specifically, Madrange discloses a composition containing at least one of: (a) a lower alkanol, such as ethanol, propanol, isopropanol or butanol; (b) a solvent such as 1,1,1 trichloroethane and methylene chloride; and (c) a diluent such as a ketone, in particular acetone and methylethyl ketone; an alkyl acetate, in particular methyl acetate or ethyl acetate, or a hydrocarbon, in particular a C3-C7 alkane. Furthermore, Madrange also makes clear that none of components (a), (b) or (c) is required. See, Col. 3, lines 37-52. Therefore, Madrange discloses a “laundry list” of at least 149 possible chemical combinations.¹ Moreover, from the laundry list of compounds and possible combinations set forth in components (a), (b) and (c), only acetone, methyl acetate, 1,1,1 trichloroethane and methylene chloride are VOC exempt compounds. See, 40 C.F.R. 51.100.

Second, the characteristic, unpleasant, odor associate with alkyl acetates, such as methyl acetate, is acknowledged in the art as a hindrance to consumer acceptance of hair care compositions. To that end, the Applicants have unexpectedly discovered that the unpleasant odor associated with methyl acetate is substantially reduced when combined with ethanol or isopropanol as recited in the present claims. See, attached declaration of Suzanne Dobbs.

The disclosure of Madrange similarly fails to teach or suggest a combination of components capable of reducing the unpleasant odor associated with methyl acetate. As set forth above, Madrange discloses a laundry list of at least 149 possible chemical combination.

¹ The number 149 was calculated as follows:

Component (a) discloses 4 preferable species; component (b) discloses 2 preferable species; and component (c) discloses 9 preferable species. Accordingly, there are:

- 1) 4 times 2, or 8 combinations of only component (a) and (b).
- 2) 4 times 9, or 36 combinations of only components (a) and (c).
- 3) 2 times 9, or 18 combinations of only components (b) and (c).
- 4) 4 times 2 times 9, or 72 combinations of components (a), (b) and (c).
- 5) 4 plus 2 plus 9, or 15 possibilities of only one of components (a), (b) and (c)

Therefore, the sum of 8, 36, 18, 72, and 15 is 149.

Assuming one of ordinary skill in the art would even have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components disclosed in Madrange (See Col. 3, lines 37-52) do not achieve the same superior and unexpected result of reducing the unpleasant odor associated with methyl acetate. See, attached declaration of Suzanne Dobbs.

Finally, Applicants have also unexpectedly discovered that ethanol or isopropanol inhibits the detrimental effects that methyl acetate by itself can cause to acetate fabrics. See, attached declaration of Suzanne Dobbs.

To this end, the disclosure of Madrange again fails to teach or suggest a combination of components capable of inhibiting detrimental effects that methyl acetate can have on acetate fabrics. Assuming again for the sake of argument that one of ordinary skill in the art would have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components disclosed in Madrange (See Col. 3, lines 37-52) do not achieve the unexpected result of inhibiting the detrimental effects methyl acetate has on acetate fabrics. See, attached declaration of Suzanne Dobbs.

Therefore, not only does Madrange fail to teach or suggest the claimed invention as a whole, there similarly is no motivation for one of ordinary skill in the art to arrive at a hair care composition that achieves the superior advantages of reducing the volatile organic compound content of the composition, reducing and/or masking the characteristic, unpleasant, odor associate with alkyl acetates, such as methyl acetate, and, inhibiting the detrimental effects that methyl acetate by itself can cause to acetate fabrics. As such, in view of the arguments set forth above, it is respectfully requested that the rejection of Claims 1, 33, 34, 43 and those claims depending there from be withdrawn.

II. Rejections over U.S. Patent No. 4,243,548

The Office Action has similarly reiterated the previous rejections of Claims 1, 33, 34, and 43, and certain claims depending there from, as allegedly being obvious over the teachings of U.S. Patent No. 4,243,548 (hereinafter "Heeb"). In addition, now pending Claims 49 and 50 have been rejected as allegedly being obvious over the teachings of "Heeb" as well.

As stated above, in order to establish a *prima facie* case of obviousness, the art of record must teach, or at least suggest, the claimed invention as a whole. Moreover, there must be adequate motivation and a reasonable expectation of success to undertake the modifications proposed in the rejection. Once again, the Office Action has failed to appreciate several unexpected and superior results achieved by the compositions recited in Claims 1, 33, 34, 43, 49, 50 and those claims depending there from.

First, the unpleasant odor associate with alkyl acetates, such as methyl acetate, is acknowledged in the art as a hindrance to consumer acceptance of hair care compositions. To that end, the Applicants have unexpectedly discovered that the unpleasant odor associated with methyl acetate is substantially reduced when combined with ethanol or isopropanol as recited in the present claims. See, attached declaration of Suzanne Dobbs.

The disclosure of Heeb does not teach or suggest a combination of components capable of reducing the unpleasant odor associated with methyl acetate. Specifically, Heeb discloses a formulation comprising at least one of 23 possible solvents that can be used alone or in combination. Considering possible formulations comprising the use of one solvent alone and only those possible combinations of any two listed solvents, Heeb therefore discloses a "laundry list" of at least 276 possible combinations.² To this end, assuming one of ordinary skill in the art

² The number 276 was calculated using the following formula:

$$n!/[(n-r)!r!]$$

wherein "n" is the total number of elements (in this case 23 species) and "r" is the number of elements in the subset (in this case a combination of any 2 species). Therefore,

$$23!/[(23-2)!2!] = 253$$

However, there are also 23 possibilities if only one of the 23 species is used. Therefore, $253 + 23 = 276$.

would in fact have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components disclosed in Heeb (See Col. 2, lines 50-60) do not achieve the unexpected result of reducing the unpleasant odor associated with methyl acetate. See, attached declaration of Suzanne Dobbs.

Second, Applicants have also unexpectedly discovered that ethanol or isopropanol inhibits the detrimental effects that methyl acetate by itself can cause to acetate fabrics. See, attached declaration of Suzanne Dobbs.

The disclosure of Heeb similarly fails to teach or suggest a combination of components capable of inhibiting detrimental effects that methyl acetate can have on acetate fabrics. Once again, as set forth above, Heeb discloses a "laundry list" of at least 276 possible combinations. To this end, assuming one of ordinary skill in the art would have been motivated to select methyl acetate from the laundry list of possible components, compositions comprising methyl acetate alone, or in combination with other components disclosed in Heeb (See Col. 2, lines 50-60) do not achieve the unexpected result of inhibiting the detrimental effects methyl acetate has on acetate fabrics. See, attached declaration of Suzanne Dobbs.

Therefore, not only does Heeb fail to teach or suggest a hair care composition providing the unexpected and superior results set forth above, but there similarly is no motivation for one of ordinary skill in the art to arrive at a hair care composition that achieves these superior and unexpected advantages. As such, in view of the arguments set forth above, it is respectfully requested that the rejection of Claims 1, 33, 34, 43, 49, 50 and those claims depending there from be withdrawn.

CONCLUSION

Attached herewith is a marked-up version of the changes made to claims by the foregoing Amendments. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

In view of the Amendments and Remarks set out above, it is respectfully asserted that the rejections set forth in the Office Action of January 2, 2002 have been overcome and that the application is in condition for allowance. Therefore, Applicants respectfully seek notification of same.

A credit card payment authorization form in the amount of \$920.00 is enclosed for the Three-Month Extension of Time. No additional fee is believed due; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: BOX AMENDMENT, Commissioner for Patents, Washington, D.C. 20231, on the date below.


Mitchell A. Katz

July 02, 2002
Date

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE."

In the claims:

Claims 1, 34, 43, 49 and 50 have been amended as follows:

1. (Once amended) A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. methyl acetate [and/or t-butyl acetate].
34. (Once amended) A consumer article comprising:
 - a. a hand-held spray container; and
 - b. a sprayable composition contained within the spray container comprising:
 - i. ethanol; and
 - ii. methyl acetate[and/or t-butyl acetate] .
43. (Once amended) A consumer article comprising:
 - a. a hand-held spray container; and
 - b. a sprayable composition contained within the spray container comprising:
 - i. isopropanol; and
 - ii. methyl acetate[and/or t-butyl acetate] .
49. (Once amended) A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. methyl acetate [and/or t-butyl acetate],wherein the volatile organic compound content of the composition is not higher than 80%.
50. (Once amended) A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. methyl acetate[and/or t-butyl acetate];

wherein the amount of component (b) is sufficient to substantially inhibit the hydrolysis of component (c) when water is present.

New Claims 51-55 have been added as follows:

- 51. A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. t-butyl acetate.

- 52. A consumer article comprising:
 - a. a hand-held spray container; and
 - b. a sprayable composition contained within the spray container comprising:
 - i. ethanol; and
 - ii. t-butyl acetate

- 53. A consumer article comprising:
 - a. a hand-held spray container; and
 - b. a sprayable composition contained within the spray container comprising:
 - i. isopropanol; and
 - ii. t-butyl acetate.

- 54. A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. t-butyl acetate,wherein the volatile organic compound content of the composition is not higher than 80%.

- 55. A hair care composition comprising:
 - a. a fixative;
 - b. ethanol; and
 - c. t-butyl acetate;

wherein the amount of component (b) is sufficient to substantially inhibit the hydrolysis of component (c) when water is present. --